

## **FY17 Results Presentation Speakers' Notes**

### **Slide 1**

#### **Opening slide – Tim Worner**

Welcome to Seven West Media's 2017 financial year results and thank you for joining us.

I'm Tim Worner, the CEO of Seven West Media.

Joining me here in the room today for the presentation are:

- Warwick Lynch - Chief Financial Officer,
- Bruce McWilliam, Commercial Director
- Kurt Burnette - Chief Revenue Officer;
- Clive Dickens - Chief Digital Officer;
- Gereurd Roberts - CEO of Pacific and
- Bridget Fair, Group Chief of Regulatory Affairs is hopefully on the line from Canberra

We will take questions at the end of the presentation.

Let's get started.

### **Slide 2**

#### **Disclaimer – Tim Worner**

On page 2 is our disclaimer, which is customary for presentations of financial results.

### **Slide 3**

#### **Agenda - Tim Worner**

On slide 3 is the agenda for today. I will run through our result detailing progress in each of our areas of focus. Warwick will then take you through the financial results in more detail before I review the performance of each of our businesses units, Television, Seven Studios, Digital, The West, Pacific and early stage venture investments.

For the last three years we have focused on three pillars, 1) maintaining leadership, 2) redefining our operating model and 3) fuelling new growth. That focus is helping us through what is a tough market.

We have now evolved this strategy.

We will walk you through the path we have charted to address fundamental changes in our core markets and the opportunities that they present.

Over the last few weeks I have presented to our people across the country these updated objectives and we'll review them in the last section of this presentation.

Finally, we will close with Q & A.

#### **Slide 4**

##### **Performance & Outlook: Maintain Leadership – Tim Worner**

To slide 4.

Maintaining leadership and monetising that performance has been important for us and will continue to be. We have now consistently delivered for 22 consecutive halves in Television ratings and revenue.

As well, we are using the strength of our content and brands to build on our leadership position in new markets. In live streaming and catch up commercial TV, we lead in audience and we secure over 45% share of revenue versus our commercial competitors.

Our publishing assets are leading in their core markets and are gaining audience and revenue share in their digital markets.

#### **Slide 5:**

##### **Performance & Outlook: Redefine the Operating Model – Tim Worner**

Moving to slide 5.

We are evaluating how we do things and ensuring we are operating smarter and more efficiently, acknowledging the pace of change in this industry. We are generating greater revenue from our assets and using disruptive technology to do that.

Our multiplatform delivery of the Australian Open and Olympics was a great example, a game changer in terms of how we deliver content. The future is how we monetise across different windows and distribution channels. Rio was not an ideal timeslot for broadcast, but it was for streaming. 19.6 million Australians enjoyed our coverage anywhere, on any device. That is the potential of deploying content across all platforms and why we need to invest in maximising these capabilities.

We continue to focus on operational efficiencies across our business, and as per our guidance we reduced group operating costs by \$20m, excluding the impact of Olympics, license fee reductions and 3<sup>rd</sup> party commissions. So just to be clear, that is including the \$30m AFL rights step up in the period.

WA Newspapers marked a significant milestone in its very long history with the acquisition of The Sunday Times and PerthNow. This pivotal transaction delivers both revenue and cost synergies. It also increases the digital scale we think is so important and will highlight again in more detail later.

Over the last nine months Pacific has executed its own transformation plan, furthering its evolution as an audience centric business, with a path to increased profitability. The Pacific portfolio of titles has been sharpened to achieve maximum penetration and reach while driving 15% of cost out of the business.

Finally, the renegotiation of the Yahoo7 JV has provided the entire company more flexibility with how we exploit our content online. We have announced a new wholly owned over-the-top product which will be launched late this year. We are moving into

that expanding Total Video market with great purpose and vigour. Total Video- the consumption of all video on any screen. More on how and why we are going to do that later.

## **Slide 6**

### **Performance & Outlook: Fuel New Growth – Tim Worner**

Slide 6 covers some of our areas of growth.

We have built the largest production company in Australia and continue to invest in expanding our presence globally. This year we delivered an 11% increase in 3<sup>rd</sup> party commissions and program sales.

Each of the Pacific, Seven and WAN digital teams have rolled out new wholly owned, direct to consumer digital products. We have done that by employing an enterprise framework that enables us to quickly launch and scale these products in an agile and cost effective way.

On the last slide I mentioned our acquisition of the Sunday Times in Western Australia, which has already achieved more than 50% payback in the first seven months.

We have demonstrated the ability to leverage the reach and power of our audience to help grow early stage companies. Our overall portfolio value has increased to \$83 million as of the end of July.

This has been a key part of our strategy and it will continue to be as we look for how we can use our enormous daily reach to grow new revenue streams, increase value and create new consumer brands.

Moving to slide 7.

## **Slide 7**

### **FY17 Full Year Highlights - Tim Worner**

This has been a challenging year, there is no doubt about it, market conditions have not been easy but our transformation continues at pace.

This financial year we delivered underlying EBIT of \$261 million down 17.8% versus guidance of down approximately 20%. Operating expenses excluding Olympics and 3<sup>rd</sup> party productions were down 5.3%, partially driven by well overdue license fee reductions we received in the period.

Underlying profit after tax of \$166.8 million excludes significant items. Just on that tax we paid, it's \$56 million a fair bit more than the competitors who are changing the market in which we compete.

In the period, we booked an impairment of \$988.8m which reflects material write downs in the carrying value of our assets including the Television, Newspaper, Magazine and Yahoo7 business units. This has been driven by a reduction in the medium to long term market growth forecasts for most of these businesses impacting the carrying value of assets, including certain content rights.

Looking ahead we expect the broadcast metro market to outperform FY17 trend and Seven is targeting an increased share across the full year ahead.

Seven Studios will continue to deliver growth with FY18 program sales and third party commissions projected to outperform earnings growth in FY17.

Yes, publishing trends will continue, but as we enhance our digital products and platforms, our growing share of digital revenues will partially offset traditional print advertising and circulation declines.

The Group's digital revenue is forecast to double again in FY18.

Underlying group EBIT in FY18 is forecast to be 5% lower than FY17.

In FY18 we are targeting group cost savings to more than offset the step up in AFL rights costs.

In FY19 we will deliver a further cost reduction of at least \$50 million as the one off events drop out of our cost base.

I will now ask Warwick to take you through the financials in more detail.

## **Slide 9**

### **Financials – Warwick Lynch**

Thank you, good morning.

Turning to slide 9 and the group financial results.

Seven West Media reported a statutory profit after tax for the financial year of negative \$745.0 million. Excluding significant items, underlying net profit after tax was \$166.8 million. This underlying result is a decrease of 19.5% on the prior year.

Our basic earnings per share was 11.1 cents excluding significant items.

A fully franked final dividend of 2 cents per share has been declared and will be paid to shareholders in October.

## **Slide 10**

### **Income Statement – Warwick Lynch**

Slide 10 shows the income statement for the year and a reconciliation of EBIT to the statutory outcome.

Total group revenue before associates was down 2.8% to last year, at \$1.68 billion.

Group operating costs increased by 1.6% to \$1.42 billion, delivering EBIT at \$261.4 million, which is 17.8% lower than the prior year.

Finance costs of \$38.6 million are up 2%, or approximately \$800,000

Due to significant items we had a \$20.7 million tax benefit for the year. The underlying tax rate is approximately 26%.

Net loss after tax of \$745.0 million was impacted by significant items of \$988.8 million, which I will explain in more detail on the upcoming slide 13.

But for now, moving to slide 11.

## **Slide 11**

### **Cash Flow – Warwick Lynch**

SWM recorded operating cashflow of \$226.9 million.

The working capital outflow primarily relates to payment of FY16 TV licence fees in the period as compared to no fee provided in respect of FY17. It also reflects investment in programming for FY18.

Redundancy costs were \$20.8 million, which is the result of the continued cost cutting programs across all business units.

Net tax payments of \$56.4 million were higher than prior year due to tax refunds received relating to content rights deductions in that prior period.

Net finance payments of \$36.6 million have increased by \$3.2m, primarily due to the upfront fees relating to the debt extension completed during the year and lower rates on cash balances.

Capex is down 5% from FY16 at \$30.1 million.

Investments primarily relate to the purchase of The Sunday Times and PerthNow during the year.

## **Slide 12**

### **Net Debt – Warwick Lynch**

Turning to net debt on slide 12.

Net debt for the financial year was \$725.7 million, bringing the group's leverage ratio to 2.4 times EBITDA. The interest cover ratio stood at 8.9 times.

During the period, we successfully extended our existing debt facilities for an additional 2 years, with maturity now extended out until 2020. Our covenants remain the same at 4x leverage ratio and 3x interest cover ratio.

Now, turning to the detail of significant items.

## **Slide 13**

### **Significant Items – Warwick Lynch**

On slide 13 we provide a breakdown of the \$988.8 million in significant items taken during the year.

Across Television, The West, Pacific and equity accounted investees, \$835.2 million of intangible assets, equity accounted investments and other assets were impaired. The impairments arise as a result of the reassessment of the medium and long term growth assumptions for the traditional businesses as a result of recent market conditions and available industry data projections.

The impairment of equity accounted investees primarily relates to half and full year write downs totalling \$154.7 million of the carrying value of our investment in the Yahoo7 joint venture, reflecting accelerated declines in premium display revenue and the recent Verizon transaction and revised shareholders agreement in which we took back control of our long form content.

In light of the reassessment of the ad market outlook, our significant items also include the review of our content rights, particularly certain legacy US output deal content and one off sports events. As a result we have booked an onerous provision of \$139.6million. The unwind of this provision is outlined in the chart on this slide, which also approximately reflects the related cash out flow.

## **Slide 14**

### **Seven Divisional Performance – Warwick Lynch**

Moving on, slide 14 covers the performance of Seven Television.

Seven's metro and regional advertising revenues including broadcast and digital increased 1% to \$1.18 billion a nearly \$12 million increase in the face of a 3.7% decline in the traditional metro television ad market.

Additionally, Seven's share of the metro ad market was 40.2%, up from 38.9% last year.

Program sales and 3rd party commissions revenue grew by 11% to \$97.3 million. This is another great result for our production business with average double digit growth for a 6th year.

Costs increased 6.6% or \$63.5 million. This increase is due to one off Olympic rights and production, the new AFL contract and third party commission expenses, partly offset by the TV license fee and operating cost reductions.

EBIT for the year was \$249.7 million, 14.4% lower than the prior year.

## **Slide 15**

### **The West Divisional Performance – Warwick Lynch**

Moving on to The West's performance on slide 15

The West now includes The West Australian, The Sunday Times, TheWest.com.au and PerthNow after the Sunday Times acquisition was completed on the 16<sup>th</sup> of November.

Due to continuing economic challenges in Western Australia local display advertising conditions are difficult and as a result, the advertising market remains very short.

Advertising revenue in The West was down 11.9% year on year.

However, circulation revenue increased by 6.3%, and digital revenue was up over 65% in the period, benefiting from the Sunday Times and Perth Now acquisition.

Cost control remains an ongoing focus as part of The West's transformation program. Excluding the Sunday Times, costs were down \$7.8 million, or 4.6%.

EBIT declined to \$26 million.

## **Slide 16**

### **Pacific Divisional Performance – Warwick Lynch**

On slide 16, we show the financial performance of the Pacific business.

This business has undergone significant portfolio restructuring which commenced in September 2016.

Circulation revenue declined by 15.9%, on a like-for-like basis excluding the closed and sold titles, the decline would have been 9.2%.

Financial performance was impacted by the weakness in print advertising revenue which declined by 28%, again impacted by closed and sold titles against a market decline of 21%.

Pacific is making material investment in new digital products, the revenue of which is included in Digital and other revenue. Overall this revenue increased by 26.3% year on year. Digital revenue increased by 59%. Digital advertising revenue is now approximately 20% of total advertising revenue for Pacific. Costs were down 15% for the year or \$27.7 million.

Magazines EBIT was \$3.5 million. I note that if the restructure of the magazine portfolio had been in place for the full 12 months, EBIT would have been \$7.3 million, down 19.8% on a like for like basis.

Moving to slide 17.

## **Slide 17**

### **Other Business and New Ventures – Warwick Lynch**

Other business and new ventures is comprised of regional radio and events business in WA, Red Live Events, our share of Yahoo7 profit and early stage investments.

EBIT prior to early stage investments was \$5.1 million, with the result impacted by lower share of net profit from Yahoo7, Community Newspapers, the sale of Sky News and The Royal Edinburgh Military Tattoo event in the prior year.

Losses from early stage businesses of \$7 million in the period were primarily due to the Presto JV prior to our disposal in the first half. In terms of our early stage businesses, we expect these to grow profitably in the medium term, delivering substantial returns on the existing portfolio value which now stands at \$83 million.

Now back to Tim, for the operating highlights.

## **Slide 19**

### **Seven – Tim Worner**

Moving to slide 19.

The 2017 financial year marked another strong, consistent year for our television business. It started well but finished very strongly, winning every television survey ratings week from November 2016 through to the end of the financial year.

In the period Seven delivered a 39.2% commercial share of audience and 40.2% metro revenue share with total advertising revenue for the business up 1% on the prior year. Our Olympics revenue performance was hindered by a soft advertising market. Nonetheless, nearly 20 million Australians still flocked to see our athletes in action on the field, on the track and in the pool - viewing across every screen. While this result is pleasing, the performance of some of our new program launches disappointed, something we aim to rectify in the coming months with upcoming tentpole events.

Our new rights agreement with the AFL has immediately been positive. The number of people watching this most extraordinary season of the greatest game of all was up 8% this financial year. On top of that we have something truly exciting in the making with the success of AFLW – a phenomenon not just because of the crowds and the television audience, but also because of the number of big brands so keen to associate themselves with and support women's sport. Having agreed to broadcast the first virtually experimental game to a huge audience in September 2016, Seven is very proud of its part in building this major new franchise.

Besides on-screen performance we largely offset the increased fee for AFL rights through our cost management program. We have also seen our collective efforts as an industry in Canberra result in a \$35 million reduction in our licence fees.

## **Slide 20**

### **Television Leadership – Tim Worner**

On slide 20 we highlight our programming scorecard for the financial year, which reinforces the breadth, depth and strength of our content offering. Clearly live sport delivers huge audiences; but sport alone is not enough. We also broadcast the number one drama, drama event and reality show. Throughout the year Seven has maintained its position as the number one news service in the country. Every night at 6pm nearly 2 million Australians keep an appointment to watch Seven News. Sunrise is number one at breakfast, The Morning Show leads in the mornings and Sunday Night wins Sunday nights.

These program wins, while nice to talk about, don't mean anything unless they translate to increased advertising revenue. As I talked about on the last slide we gained share in the advertising market and the reason why is illustrated in the figure on the right. With key demographics, we incrementally gained share, and not just due to the strong Olympics performance. Even taking that out of the audience figures, we made material gains.

## **Slide 21**

### **Sports Rights – Tim Worner**

On slide 21, we showcase our unprecedented line up over the next 12 months. This is currently in market as the most effective marketing platform in Australian broadcast history with marquee events in a local time zone including a Commonwealth Games on home soil, the Rugby League World Cup, the Winter Olympics in PyeongChang, South Korea, and internationally successful reality franchises with another new one to come. This will not only provide unprecedented opportunities for our advertising partners, but also provides us the launch platform for other new brands, products and programs.

Moving to slide 22.

## **Slide 22**

### **Production and Distribution – Tim Worner**

Our production and distribution business, now branded Seven Studios, continues to drive value from our assets in Australia and abroad. We have developed more than 850 hours of premium content for a global audience in over 160 countries. We are now rapidly expanding our short form video content library using the same tools, ideas and people.

Our production companies continue to grow their content library. Major new commissions in production include A Place to Call Home season 5 for Foxtel in Australia, My Lottery Dream Home season 4 for HGTV in the US, series 2 of Back to



the Land for BBC and series 2 of My Kitchen Rules for Channel 4. MKR is being produced in 11 countries, the last two being big ones, South Africa and Germany. Another successful program on screens and now in retail outlets, is the series Beat Bugs which was nominated for 5 Daytime Emmy Awards and won the Emmy for Outstanding Writing. The next season of Beat Bugs is currently in production. This month saw a major merchandising roll out across the US to be followed by the UK. This year we delivered an 11% increase in program sales and 3rd party commissions revenue.

During the year we also opened 7Productions New Zealand and we are in the process of making new investments in production capabilities overseas.

### **Slide 23**

#### **Seven Digital – Tim Worner**

On slide 23 we cover our major digital milestones for the year. As you know over the last two years we have progressively taken control of our key digital assets across our company. This has required investment and patience. We are extending our in-house capabilities and allowing time for these digital properties to scale. The result of this is now bearing fruit. These owned and operated products delivered 100% revenue growth to approximately \$40m. We are forecasting another 100% growth in revenue for FY18. We will continue to invest in this area, growing our audience footprint and then using technology to grow the revenue.

Plus 7 was once again the #1 commercial catch up TV app in Australia. We held the #1 advertising market share, for long form video and live streaming revenue. This has been powered by more than 4 billion video views across owned and operated and social assets.

We have major plans for the launch of our new SWM-owned OTT platform this year. This is a catalyst for further moves into the rapidly expanding Total Video market. Our strategy has been leading up to this and now we're here. At the same time the restructured Yahoo7 JV continues to deliver value and will enable future opportunities.

### **Slide 24**

#### **The West – Tim Worner**

Moving on to slide 24.

This financial year has seen some of the biggest changes in the history of West Australian Newspapers with the acquisition of the Sunday Times and Perth Now in November, followed by the relaunch of our digital products in December. We have recovered over 50% of our investment within seven months of operation.

WAN continues to face challenging conditions as the WA economy lags the rest of the country and the business model for newspapers comes under pressure. We do not assume it will be easy to deliver growth, but this acquisition was another step toward this goal.

And another is a new management team that is making changes to the way we do business. This is not just about cost management. The West has quickly restructured

its sales teams to ensure they can deliver better results for customers, and indeed, win back customers. We are determined to deliver improved returns from our assets in Western Australia and the extraordinary reach that they deliver. When new leader John Driscoll joins us at the end of the month, he does so with an intimate knowledge of that market.

Finally, The West's growth will rely on a greater integration of digital platforms where we have just seen a 53% year over year increase in audience and a corresponding 65% increase in digital revenue. The West has already made a strategic decision to invest in digital development and that will enable the continued release of new digital products and subscription services into FY18.

Moving on to slide 25

## **Slide 25**

### **Pacific – Tim Worner**

Pacific has faced some of the toughest structural challenges, which has continued to weigh on print revenues. Despite these challenges Pacific has made significant strategic moves to reposition its business to an audience centric model across all platforms. This repositioning brings a much narrower focus on high value consumer and commercial categories. This has led to a complete restructuring of the operating model. There are now multiplatform content teams organised in category-based hubs working across brands. This structural shift, supported by new publishing technology and systems, means the business can deliver more premium content faster, across both print and online, and at a much lower cost.

These new measures and the rationalisation of the portfolio reduced operating expenses by 15% securing \$29m savings. This has driven not just half on half improvement. This business has made the same in the last four months as it did in the preceding twelve.

They have not just changed the way they work. Pacific owns the country's best performing collection of magazine titles, capturing 27% of readership with only 11% of titles.

Between June and September 2016, we brought all of the Pacific digital products and operations in-house. Since then we've scaled these digital audiences through the reach of our other assets. That has resulted the 188% growth in unique audience to 1.7 million, making Pacific the fastest growing digital publisher in Australia. We are also driving significant digital revenue growth from these investments, up 91% in the period and now representing 20% of Pacific's total advertising revenue.

As evidence of these moves and the success of this strategy in the 18 months since we started, we have surpassed our closest competitor in the Family, Lifestyle, Home and Fashion categories.

## **Slide 26**

### **Early Stage Ventures – Tim Worner**

Finally, on slide 26, is a summary of our early stage ventures. As I have already mentioned, in June we were able to rework the Yahoo7 joint venture agreement. While Seven West Media and AOL/Verizon continue to invest in the market-leading Yahoo7 joint venture in Australia, this new agreement provides us with the flexibility to develop our own long-form OTT platform.

As you can see on the right, the ventures portfolio continues to grow and since the end of FY16 is up 107% to reach \$83m based on current funding rounds. We expect further growth in our portfolio value in FY18, with several new investments under consideration. To quickly run through a few highlights in the year:

Our first investment, Health Engine is fast becoming one of the biggest platforms in the Australian Healthcare sector having reached 1 million active users.

Airtasker is another strong performer. This two-sided market has grown its user base to 1.5m since our investment in 2016 and is fast disrupting the Australian service economy.

SocietyOne is the #1 peer to peer lender in the country and has just surpassed \$320 million of loans.

Starts At Sixty is the largest and fastest growing over 60's platform in Australia, with a monthly audience of 1.2m and recent recognition as media brand of the year.

All of the above have one thing in common. They have been the beneficiary of the power of television and the power of Seven and its traditional assets.

The team continues to identify early stage disruptive businesses where we think we can use our audience to make a dramatic and rapid difference. We are determined to increase the value of our portfolio for shareholders, with the disciplined use of media for equity.

## **Slide 28**

### **Total Video Market – Tim Worner**

Throughout our company there is now a great understanding of our new TV strategy. And TV does not just mean television. It now stands for Total Video- the consumption of any form of video on any device.

You would have heard us talk about Total Video throughout this presentation. It's a huge advertising market, \$5.5 billion.

Now I'm sure it will come as no surprise to you that it is growing so fast. You only need to look at the explosive growth in digital video consumption, consumers screen time and the ubiquitous connectivity that we all now enjoy. For example, 7 million Australians, now stream 1.5bn minutes of OTT long form content each month.

These facts have led our transformation as a content company to better target this Total Video market and make it such an important part of our new strategic direction. Until very recently we have had significant limitations to how we could compete effectively online. Those days are now behind us and we are now making big moves in how we will operate.

At the heart of our business has always been content and content creation, and it's a key differentiator from our peers. Now we not only have the flexibility, but also the ability to leverage our brands to drive greater value. What that means quite simply is: We are going to make more great content, distribute it on our owned and 3<sup>rd</sup> party platforms where the economics work for us.

Our stable of Total Video assets across OTT, social, broadcast and production provide a clear advantage and ability to strongly compete.

The next step will be the launch of Project 8, our internal working name for our owned and operated OTT product to be launched later this year. Project 8 will also forge direct data driven relationships with our consumers. We will share more details on this exciting opportunity closer to launch.

## **Slide 29**

### **Strategy Update – Tim Warner**

To slide 29 and our new and evolved strategy, which is driven by the company's mission statement of delivering engagement and value through powerful storytelling. At the core of our strategy is transforming the way we work. Making each of the processes we use across the company more efficient.

Sitting on top of this are again three strategic pillars and I will take this opportunity to provide you some details on the building blocks of these pillars.

First, we will create and own more exceptional content not just for broadcast but for any platform. We will also continue to acquire premium content where the economics work for us. Now I think it's fair to say that sports rights have reached a tipping point in this country. Sports rights are undeniably valuable, but free to air broadcast also brings incredible value to these sporting codes. Given changes in the market, price rises are not sustainable. The Tennis for example is a great launch platform, the US Masters, the NFL and the Superbowl- these are great events. But we have to reach a position where the economics stand up for all parties, where the power and reach that free to air television brings to these sports is recognised.

Content production and the expansion of our global presence remains a strategic focus. This is focused on partnering with great content creators and building value together.

Second, SWM will grow and know our audience and seek to increase share in Total Video. Now everyone is talking about shrinking marketplaces and audiences, but as I pointed to in the previous slide, we are no longer confined to one form of distribution, we are making our content available everywhere that we can incrementally monetize it. Scale audiences alone are important, but at the same time the market is demanding greater insights into consumer behaviour and data for targeted advertising. We have made considerable investment in this space and established a wide range of partnerships to provide our clients with even greater value. Targeted advertising will only grow as an opportunity for our company as the adoption of our new distribution platforms grows.

Finally, our third pillar, delivering increased profitability and more diversified earnings. In our core assets we are pursuing new forms of monetisation, be it through windowing content or transactional based services.

Transforming the way we work to drive greater efficiencies and cost savings to improve margins. The changes to the content production processes at Pacific this year demonstrate the approach that we are taking to transformation across the group.

We will continue to look at bolt on acquisitions where the returns are highly attractive and they enhance the core. We will also invest in new digital adjacencies that we believe are high growth areas and have a natural alignment with our brands, franchises and audience. We've already talked about our digital ventures portfolio. We are building these new businesses but just as importantly we are building new clients.

Going forward we know there will be challenges, we've done a lot but more has to be done. However, we are aligned, our strategic goals are set and we believe we have the strongest set of media assets in the country from which to execute. We have provided you the outlook for the coming financial year and we look forward to providing you further insights into our progress on major projects over the coming 12 months.

### **Slide 30**

#### **Questions – Tim Worner**

That's it. Now we open up for questions.